## Warning-By-Polygon Concept

✓Polygons aren't just the future, they are the present!
- ♦Private sector companies are using Lat/Lon information at the end of warning products to:
  - →Graphically plot warning polygons for customers. TV meteorologists and Weather Radio manufacturers are already taking advantage of this information.
  - →Allow Emergency Managers to determine what tornado warning sirens to sound.
  - →Determine what phones to ring.

✓The Polygon concept allows us to:
- ♦Focus on the true area threatened by a given storm.
  - →Reduce the area not threatened.
- ♦Easily handle storms moving along county borders.
- ♦Support weather radio evolution to alert areas smaller than a county.
- ♦Support the development of graphical/web-based products that show where the greatest threat exists.

✓The size of the polygon will relate to the location and extent (in time and space) of the threat.

✓We need to evolve from "county-centric" to "specific threat" areas to improve the accuracy of warnings and minimize the impact on residents outside the polygon area.

✓The main concern with the polygon concept:
- ♦How do we relay polygon coverage into words for audio broadcast, without causing confusion.

County vs. Polygon
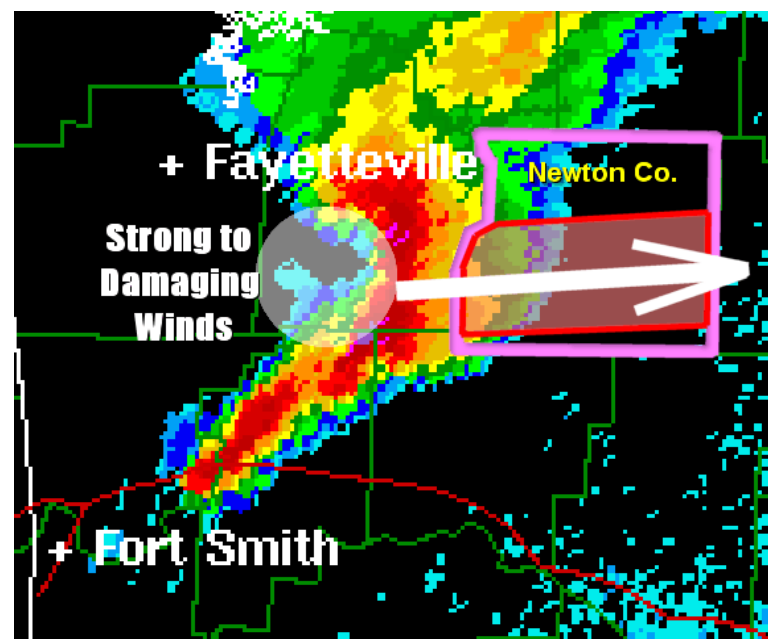
✓In this example, the storm is moving east. The highest damaging wind threat exists over southern portions of Newton County. This is shown by the red box (threat area) compared to the thick purple box (county border).

✓We can use the polygon approach to graphically illustrate the highest threat area, which is in the southern areas of Newton County.
- ♦Is there a need to warn people in the northern part of Newton County of an imminent severe weather threat?
- ♦As the illustration shows, the polygon warning approach offers the potential of reducing warning aerial coverage, where no imminent threat exists, by 50% or more compared to whole-county warnings.